

WHAT IS CLAIMED IS:

1. A system for eliminating angular alignment errors in an optical system employing collimated light beams which may be laterally off-set due to temperature excursions from the temperature at which said system was aligned, comprising:

a lens for focusing a collimated light beam incident on said lens to a focal point; and,

a lens mount for moving said lens by an amount opposite to said lateral off-set so that said lens captures said beam and provides that it come in on the optical centerline of said lens.

2. The system of Claim 1, wherein said lens mount includes an adhesive dot contacting the periphery of said lens so as to move said lens with the expansion and contraction of said dot with excursions of temperature.

3. The system of Claim 2, wherein said dot has a coefficient of thermal expansion designed to move said lens in a direction opposite to said lateral off-set.

4. The system of Claim 3, wherein said dot moves said lens by an amount equal to said lateral off-set.

5. The system of Claim 4, and further including an adhesive dot located on a diametrically opposite side of said lens from said first-mentioned dot.

6. The system of Claim 5, wherein said dots have different volumes.
7. The system of Claim 6, wherein said first-mentioned dot has a diameter and thickness twice that of said second-mentioned dot.
8. The system of Claim 1, wherein said optical system includes an optical bench having a predetermined coefficient of thermal expansion and wherein said lens mount includes a holder mounted to said optical bench at one end thereof and having a coefficient of thermal expansion higher than that of said optical bench.
9. The system of Claim 8, wherein movement of said holder with temperature variation is opposite to that of said optical bench with said temperature variation.
10. A method of minimizing alignment errors in an optical system providing a collimated light beam impinging on a lens, the beam having been laterally-shifted from an originally aligned position on the optical centerline of the lens, comprising the step of moving the lens in response to temperature changes such that the centerline of the lens corresponds to the centerline of the laterally-shifted beam.
11. The method of Claim 10, wherein the optical system includes a laser.

12. The method of Claim 11, wherein the laser is a multi-color laser and wherein the movement of the lens assures all of the multi-colored beams produced by the laser come out aligned with the optical centerline of the lens.

13. The method of Claim 10, wherein the lens includes a number of optical elements.

14. A method of preserving initial alignment of an optical system which projects a collimated laser beam toward a target indicated as being on a boresight axis so as to minimize angular boresight error the result of temperature changes, comprising the steps of:

initially aligning all of the elements in the optical system at one temperature such that any collimated beam impinging on a lens in the system comes along the optical axis of the lens, temperature changes from the initialization temperature causing a lateral shift of the collimated beam from the optical axis of the lens; and,

moving the lens in response to a temperature change from the initialization temperature so as to align the centerline of the lens with that of the off-set beam, thus to null out any angular alignment error caused by the lateral off-set.